

What is claimed is:

1. A stator of an induction motor, the induction motor comprising:
a stator provided with a main winding coil and an auxiliary winding coil at a
5 plurality of slots formed at a body of the stator;
an induction rotor rotatably inserted into the stator; and
a magnet rotor rotatably inserted between the stator and the induction
rotor,
wherein coil spans, intervals between the slots, are different each other.
10
2. The induction motor stator of claim 1, wherein two adjacent coil
spans of the slots are different each other.
3. The induction motor stator of claim 1, wherein two adjacent coil
15 spans in one direction are called as a pair of coil spans, the pairs of coil spans are
formed as the same shape and the same size, and two coil spans constituting the
pair of coil spans are different each other.
4. The induction motor stator of claim 3, wherein a ratio between
20 said two coil spans constituting the pair of coil spans is preferably 1.5:1.
5. The induction motor stator of claim 3, wherein a ratio between
said two coil spans constituting the pair of coil spans is preferably or 2.75:1.
- 25 6. A stator of an induction motor, the induction motor comprising:

a stator provided with a main winding coil and an auxiliary winding coil at a plurality of slots formed at a body of the stator;

an induction rotor rotatably inserted into the stator; and

a magnet rotor rotatably inserted between the stator and the induction

5 rotor,

wherein end widths of teeth formed between the slots are different each other.

7. The induction motor stator of claim 6, wherein the slots have the
10 same size and the same shape, and lengths and widths of the teeth formed between the slots are the same.

8. The induction motor stator of claim 6, wherein two adjacent end
widths of the teeth in one direction are different, said two different teeth are called
15 as a pair of teeth, and pairs of teeth adjacent to the pair of teeth have the same shape and the same size.

9. The induction motor stator of claim 8, wherein a ratio between the
end widths of two teeth constituting the pair of teeth is preferably 1.5:1.

20

10. The induction motor stator of claim 3, wherein a ratio between the
end widths of two teeth constituting the pair of teeth is preferably or 2.75:1.

11. A stator of an induction motor, the induction motor comprising:

25 a stator provided with a main winding coil and an auxiliary winding coil at a

plurality of slots formed at a body of the stator;

an induction rotor rotatably inserted into the stator; and

a magnet rotor rotatably inserted between the stator and the induction rotor,

5 wherein coil spans, intervals between the slots, are different, the main winding coil is wound on teeth positioned at the coil span which is relatively greater, and the auxiliary winding coil is wound on teeth positioned at the coil span which is relatively less.